Application No. 10/749,815
Amendment dated May 23, 2006
Response to Office Action of February 23, 2006

Atty. Docket No. 42P18167
Examiner WALTER, Craig E.
TC/A.U. 2188

REMARKS

The applicant respectfully requests reconsideration of the above referenced patent application in view of the amendments and remarks set forth herein, and respectfully request that the Examiner withdraw all rejections. Claims 1, 6, 8, 14, 15, 17 and 18 have been amended. Claims 7, 13 and 19 have been canceled. No claim have been added. Thus, claim 1-6, 8-12 and 14-18 are pending.

Office Action Objections

The Office Action objects to the abstract of the disclosure for an alleged extraneous mark, i.e. "Attorney Docket 42.P181167." The Office Action cites MPEP § 608.01(b) as a basis for the objection. For the purposes of a full response, Applicant assumes that the Office Action refers to the text "Attorney Docket 42.P18167" included in the footer for that page next to the page number.

Applicant traverses this objection, noting that MPEP § 608.01(b) requires that the Abstract sheet "not include other parts of the application or other material." Applicant finds no limitation against "extraneous marks" per se, and submits that the limitation applies to subject matter in the text rather than to including file information for tracking purposes. For illustration, Applicant directs the Examiner to MPEP § 513 which states, "[i]t is not necessary that the [Express Mail] number be placed on each page of a particular paper or fee transmittal." Applicant submits that MPEP § 513 does not require, but implicitly allows each page of a filed application, including the Abstract sheet, to

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Atty. Docket No. 42P18167
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TC/A.U. 2188

include the Express Mail number. Like the Express Mail number, including a docket number or other file information on the Abstract sheet helps the Applicant and the Office to keep track of application sheets throughout examination. It is the regular practice of the law firm representing Applicant to include this information on Abstract sheets without objection from the Office. Applicant respectfully submits that MPEP § 608.01(b) has not and should not be read to prohibit file information on an Abstract sheet, and asks that this objection be withdrawn.

The Office Action objects to claims 15 and 17-19 based on the manner of dependency from a parent claim. Specifically, the above claims depend from independent claim 8, whereas they are claims to a system, as in that of independent claim 14. Applicant has amended claims 15, 17 and 18 to depend from claim 14. The claims are amended as to form, and remain supported by the original disclosure. Claim 19 is cancelled, making the objection moot as to this claim. Applicant therefore requests that the objections based on claim dependency be withdrawn.

The Office Action objects to claims 2, 6-7, 9, 13, 15 and 19 as lacking antecedent basis for referencing to "the hard disk." These are dependent claims which each depend directly or indirectly from one of independent claims 1, 8 and 14. Claims 1, 8 and 14 have been amended to refer to "historical performance data of a hard disk." The claims are amended as to form, and remain supported by the original disclosure. Applicant submits that the amended independent claims provide antecedent basis for reference to "the hard disk" in the dependent claims. Applicant therefore requests that the objection to claims 2, 6-7, 9, 13, 15 and 19 based on antecedent basis be withdrawn.

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Atty. Docket No. 42P18167
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TC/A.U. 2188

The Office Action objects to claims 7, 13 and 19 for matters of informality, recommending the phrase "events **the** produced" be changed to "events **that** produced." Claims 7, 13 and 19 have been cancelled, rendering this objection moot.

35 U.S.C. §101 Rejections

The Office Action rejects claims 8-13 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Specifically, the scope of claims 8-13 is alleged to include non-statutory subject matter such as carrier waves and signals, based on paragraph [0021] of the original disclosure. As set forth in the Amendment to the Specification, Applicant has removed from paragraph [0021] all references to carrier waves or related types of signals. Applicant submits that amendments to the claims and to the specification have limited the scope of claims 8-13 to include only patentable subject matter. Applicant requests that the 35 U.S.C. §101 rejection of claims 8-13 be withdrawn.

35 U.S.C. §103(a) Rejections

35 USC § 103(a) Rejection over *Fortin* and *Douglis*

The Office Action rejects claims 1, 2, 6-9, 13-15 and 19 under §103(a) as being upatentable over Fortin et al., US PG Publication 2004/0003223 A1 (*Fortin*) in view of Douglis et al., USPN 5,481,733 (*Douglis*). Specifically, the Office Action alleges that *Fortin* discloses use of various forms of non-volatile memory to save configuration data when a hard drive is spun down. *Douglis* is alleged to suggest the substitution of performance data for the configuration data of *Fortin*, so as to render the present

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Atty. Docket No. 42P18167
Examiner WALTER, Craig E.
TC/A.U. 2188

invention obvious. To overcome a §103(a) rejection, the applicant may either show that

no combination of the cited documents teaches or suggests a claim limitation, or add such

a limitation by appropriate amendment. Applicant has cancelled claims 7, 13 and 19.

For at least the following reasons, Applicant submits that the remaining claims as

amended are patentable over *Fortin* and *Douglis*.

The limitations of cancelled claims 7, 13 and 19 have been merged, respectively,

into amended independent claims 1, 8 and 14. Each of amended claims 1, 8 and 14 has

as a limitation the storing in non-volatile memory of data which <u>includes</u> **events**

triggering a spin-down of the hard disk <u>and</u> a **period of time** thereafter before the hard

disk was **spun up**. *Douglis* is alleged in the Office Action to store a history of disk

activity. However, *Douglis* discloses "disk activity" as merely meaning **disk accesses by**

a user (Abstract, col. 8 lines 15-25, col. 9 lines 57-62, col. 10 lines 46-50 and 60-63).

Moreover, the "history of disk activity" data in *Douglis* is limited to the **times** of disk

accesses by the user (col. 9 lines 57-62, col. 10 lines 46-50 and 60-63). Applicant

submits that *Douglis* does not store in non-volatile memory either the cause of a

particular spin down of a hard disk or the time between spin up and spin down of the hard

disk.

First, **using** data in non-volatile memory for calculations which may lead to a hard

disk spin down is **distinct** from **storing** in non-volatile memory an <u>identifier</u> of the event

which triggered spin down. This distinction is best illustrated when spin down is

triggered by events <u>other than</u> the calculation of data in non-volatile memory, as

discussed in paragraph [0013] of the original disclosure. Regardless of whether a hard

Application No. 10/749,815
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Atty. Docket No. 42P18167
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TC/A.U. 2188

disk spin down resulted from a state transition probability calculation or some **other** event, *Douglis* **does not store** in non-volatile memory the **identifier** signifying the **triggering event** for that particular spin down. *Douglis* does not provide a way for tracking which particular state transition probability calculation or other event gave rise to the latest, or any, particular hard disk spin down. In other words, *Douglis* does not preclude the loss of such an event identifier upon spin down of the hard disk, unlike the present invention. Second, *Douglis* merely stores the time of a particular hard disk access by a user, i.e. a time when the hard disk was known to **be spinning**. *Douglis* does **not** save data **relating** a particular hard disk access to the time of either the **preceding** hard disk spin up event or the **following** hard disk spin down event. Therefore, *Douglis* does not disclose saving in non-volatile memory the time interval from a hard disk spin down event to a hard disk spin up event, as disclosed in the present invention.

For at least the foregoing reasons, Applicant submits that amended independent claims 1, 8 and 14 each have one or more limitations not taught by any combination of *Fortin* and *Douglis*. Furthermore, by depending directly or indirectly from one of these claims, each of claims 2, 6, 8, 9, and 15 incorporates the limitations not taught or suggested in the cited art. Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 1, 2, 6, 8, 9, 14, and 15 based on *Fortin* and *Douglis* be withdrawn.

35 USC § 103(a) Rejection over *Fortin, Douglis,* and *Sanada*

The Office Action rejects claims 5, 12 and 18 under §103(a) as being upatentable over *Fortin* and *Douglis* in view of Sanada et al., US PG Publication 2001/0002173 A1

(*Sanada*). The Office Action relies on the previous rejection of claims 1, 8 and 14, and further offers *Sanada* as disclosing the use of thin film electronic memory as a type of non-volatile memory. For the following reasons, Applicant submits that claims 5, 12 and 18 are patentable over *Fortin, Douglis,* and *Sanada.*

Amended claims 5, 12 and 18 depend, respectively, from independent claims 1, 8 and 14. Each of amended claims 1, 8 and 14 has as a limitation the storing in non-volatile memory of data which includes **events triggering** a **spin-down** of the hard disk and a **period of time** thereafter before the hard disk was **spun up**. As discussed above, no combination of *Fortin* and *Douglis* either teaches or suggests this limitation. Claims 5, 12, and 18 each incorporate this limitation by virtue of their dependency from their respective parent claims. The Office Action does not offer *Sanada* as teaching, nor does it teach or suggest, the storing of such information in non-volatile memory. Accordingly, each of claims 5, 12 and 18 has a limitation not taught or suggested by any combination of the cited art. Applicant requests that the 35 U.S.C. §103(a) rejection of claims 5, 12 and 18 based on *Fortin, Douglis,* and *Sanada* be withdrawn.

35 USC § 103(a) Rejection over *Fortin, Douglis,* and *Chou*

The Office Action rejects claims 3-4, 10-11 and 16-17 under §103(a) as being upatentable over *Fortin* and *Douglis* in view of Chou et al., US PG Publication 2005/0055481 A1 (*Chou*). The Office Action relies on the previous rejection of claims 1, 8 and 14, and further offers *Chou* as disclosing the use of MPCIE technology as a type of

Application No. 10/749,815
Amendment dated May 23, 2006
Response to Office Action of February 23, 2006

Atty. Docket No. 42P18167
Examiner WALTER, Craig E.
TC/A.U. 2188

non-volatile memory. For the following reasons, Applicant submits that claims 3-4, 10-11 and 16-17 are patentable over *Fortin, Douglis,* and *Chou.*

Each of amended claims 3-4, 10-11 and 16-17 depend from one of independent claims 1, 8 and 14. Each of amended claims 1, 8 and 14 has as a limitation the storing in non-volatile memory of data which <u>includes</u> **events triggering** a **spin-down** of the hard disk <u>and</u> a **period of time** thereafter before the hard disk was **spun up**. As discussed above, no combination of *Fortin* and *Douglis* either teaches or suggests this limitation. Claims 3-4, 10-11 and 16-17 each incorporate this limitation by virtue of their dependency from their respective parent claims. The Office Action does not offer *Chou* as teaching, nor does it teach or suggest, the storing of such information in non-volatile memory. Accordingly, each of claims 3-4, 10-11 and 16-17 has a limitation not taught or suggested by any combination of the cited art. Applicant requests that the 35 U.S.C. §103(a) rejection of claims 3-4, 10-11 and 16-17 based on *Fortin, Douglis,* and *Chou* be withdrawn.

Application No. 10/749,815
Amendment dated May 23, 2006
Response to Office Action of February 23, 2006

Atty. Docket No. 42P18167
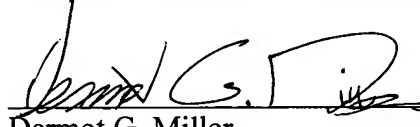Examiner WALTER, Craig E.
TC/A.U. 2188

CONCLUSION

For at least the foregoing reasons, Applicant submits that the objections and

rejections have been overcome. Therefore, claims 1-6, 8-12 and 14-18 are in condition

for allowance and such action is earnestly solicited. The Examiner is respectfully

requested to contact the undersigned by telephone if such contact would further the

examination of the present application. Please charge any shortages and credit any

overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

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